

REMARKS/ARGUMENTS

Claims 22-24 remain in this application. For the reasons set forth below, it is submitted that claims 22-24 are in condition for allowance and allowance of the application is respectfully requested.

Rejections under 35 USC §103a

In the Office Action, claims 22-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Kinman* (5,834,999; hereafter “*Kinman* ‘999”) or *Blucher et al.* (5,811,710; hereafter “*Blucher*”) in view of *Anderson* (5,168,117; hereafter “*Anderson*”). In addition, claim 22 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Kinman* (5,668,520, hereafter “*Kinman* ‘520;” and 6,103,966, hereafter “*Kinman* ‘966”) in view of *Anderson*. Further, claims 22-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Kinman* ‘999 or *Blucher* in view of *Freeman* (3,657,461; hereafter “*Freeman*”). For the reasons set forth below, Applicant respectfully traverses the rejections and respectfully submits that the claims define patentable subject matter over the cited prior art.

Claim 22 of the present invention recites a pickup, such as a pickup for a musical instrument. In one embodiment of the invention, the pickup includes an upper coil and a lower coil. In addition, a single non-magnetized ferromagnetic plate, that is also uniformly and completely flat, is disposed between the upper and lower coils of the pickup. As discussed in further detail below, neither the *Kinman* references or *Blucher* reference in view of *Anderson* nor the *Kinman* references or *Blucher* reference in view of *Freeman* disclose a single, uniformly completely flat non-magnetized ferromagnetic plate disposed between the upper coil and the lower coil of a pickup.

The Kinman References

The *Kinman* ‘966 reference is a continuation in part of the *Kinman* ‘999 reference which is a continuation in part of the *Kinman* ‘520 reference.

The *Kinman* references are generally directed to transducers for stringed musical instruments and include a first coil, a second coil arranged with its axis coincident with the axis of the first coil, and a metallic shield made of magnetically permeable material arranged between the coils (*Kinman* ‘520, Col. 2: 35-38; *Kinman* ‘999, Col. 1: 63-65;

Kinman '966, Col. 2: 43-45). The magnetic shield includes one or more outwardly directed walls extending over the sides of the coils. In particular, as best seen in Figures 1 and 7 of the Kinman '520 and '966 references, the metallic shield may be present as a tray having a base and a continuous upstanding wall, or U shaped (also H shaped when formed by two U shaped shields) having a base and two opposed upstanding side walls. The device, particularly the shield, of the Kinman references is directed to inductively and magnetically decouple/isolate the coils from one another, thereby effectively canceling any noise from the electrical signals.

In contrast to the embodiments claimed in claims 22-24 of the present application, the Kinman references fail to teach or suggest a single, uniformly completely flat plate disposed between the upper coil and the lower coil. Further, as conceded by the Examiner, the Kinman references also fail to disclose or suggest a flat plate that is non-magnetized and ferromagnetic. The magnetic shield extending over the sides of the coils of the Kinman devices cannot, by definition, be flat or a non-magnetized ferromagnet. As such, nowhere do the Kinman references disclose or suggest a single, uniformly completely flat non-magnetized ferromagnetic plate disposed between the upper coil and the lower coil as recited in claims 22-24 of the present application.

The Blucher and Anderson references are similarly deficient and do not make up for the deficiencies of the Kinman references, as explained in further detail below.

The Blucher Reference

The Blucher reference is directed to a pickup device for stringed musical instruments and includes an upper bobbin having a body and a coil of wire wrapped therearound, a lower bobbin positioned below and coaxial to the upper bobbin and having a body and a coil of wire wrapped therearound, and an integral plate of ferromagnetic material comprising a base, disposed between the upper and lower bobbins perpendicular to the coil axes, and two side walls extending upwardly and perpendicularly from the base of the integral plate. (Col. 2:22-34)

As conceded by the Examiner and in contrast to the embodiments claimed in claims 22-24 of the present application, the Blucher reference fails to teach or suggest a

single, uniformly completely flat ferromagnetic plate disposed between the upper coil and the lower coil of the pickup. Further, the Blucher reference also fails to disclose or suggest a flat plate that is also non-magnetized. The integral plate of the Blucher device includes side walls that extend over the sides of the coils and wherein the sidewalls have a cut-away that is positioned below one or more of the strings. As further emphasized in the Blucher reference, "locating the cut-away below the strings of the instrument which vibrate at a frequency relatively lower than the others lessens or eliminates the increase in the magnetic field about those strings due to the plate, thereby preventing a deterioration of the sound of the instrument." (Col. 2:15-21) Thus, the integral plate of the Blucher device cannot, by definition, be flat or a non-magnetized ferromagnet. As such, nowhere does the Blucher reference disclose or suggest a single, uniformly completely flat non-magnetized ferromagnetic plate disposed between the upper coil and the lower coil as recited in claims 22-24 of the present application.

The Anderson Reference

The Anderson reference is similarly deficient and does not make up for the deficiencies of the Kinman references nor the Blucher reference.

The Anderson reference is directed to a stacked guitar pickup and includes two stacked coils, namely, an upper coil and a lower coil. (Col. 2:47-48) The two coils are made up into a stack by fixing them on either side of a flexible bar magnet, made of a magnetic material disposed in a flexible rubberized plastic carrier. (Col. 3:36-41) The use of a flexible, deformable magnet provides an extremely low noise guitar pickup and reduces microphonic noise caused by relative movement of pickup components. Further, the flexibility of the magnet provides a shock absorbing capability, to desensitize the pickup to microphonic noise, while the deformability of the magnet allows it to occupy surface discontinuities between a surface of the coil (i.e., second end of the at least one pole piece) and the magnet (i.e., carrier). (Col. 4:31-41 and Col. 2:13-14)

As such, the Anderson reference does not even disclose a single, uniformly completely flat non-magnetized ferromagnetic plate disposed between the upper and lower coils. In fact, the Anderson reference specifically discloses that the flexible bar

magnet is made of a magnetic material disposed in a flexible rubberized plastic carrier. (Col. 3:40-41) Although the Anderson reference does illustrate that there is one flexible/deformable magnet disposed between the coils, such magnet cannot be a uniformly completely flat non-magnetized ferromagnetic plate, since (1) the Anderson carrier includes a magnet and therefore cannot be non-magnetized; and, (2) the Anderson magnet is disposed in a flexible rubberized plastic carrier, the deformability of which allows it to occupy surface discontinuities between a surface of the coil and the carrier. It follows that if the carrier is deformable so as to occupy surface discontinuities, then it cannot, by definition, be uniformly and completely flat. Thus, nowhere does the Anderson reference disclose or suggest a single, uniformly completely flat non-magnetized ferromagnetic plate disposed between the upper coil and the lower coil as recited in claims 22-24 of the present application.

It is well settled that a reference must provide some motivation or reason for one skilled in the art (working without the benefit of the applicant's specification) to make the necessary changes in the disclosed device of the primary reference. The mere fact that a reference may be modified in the direction of the claimed invention does not make the modification obvious unless the reference expressly or impliedly teaches or suggests the desirability of the modification. *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984); *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. App. 1985); *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. App. 1984).

The Anderson reference fails to meet this basic requirement. There is no suggestion in the Anderson reference for modifying the Kinman device or the Blucher device in the direction of the present invention, nor is there any suggestion whatsoever of the desirability of such modification. Thus, it is respectfully submitted that the ordinarily skilled artisan would have no motivation to combine the references as suggested by the Examiner.

For the reasons stated above, it is submitted that the Kinman, Blucher and Anderson references, either alone or in any combination, neither anticipates nor renders obvious the invention as recited in claim 22. Further, for at least these same reasons, it is submitted that pending claims 23-24, which depend from independent claim 22, are

also allowable over the cited prior art. However, the claims dependent to claim 22 further distinguish over the prior art and thus do not stand or fall with the allowability of claim 22.

The Freeman Reference

The Freeman reference is directed to a pickup device for stringed musical instruments and, in one embodiment, includes two identical bar magnets having north and south poles, with each magnet surrounded by wire coils, separated by a plate. (Col. 3:3-5) In particular, the plate is formed of magnetic material which maintains one coil in the flux of the north pole and the other coil in the flux of the south pole, and wherein the north pole flux also extends to the south pole and the plate. (Col. 2:68-71)

In contrast to the embodiments claimed in claims 22-24 of the present application, the Freeman reference fails to teach or suggest a single, uniformly completely flat non-magnetized ferromagnetic plate. The plate of the Freeman device is made of a magnetic material and, in an alternate embodiment of the device, is slotted so as to encompass the bar magnet. Further, it is apparent that the particular arrangement of the coils and plate of the Freeman device in no way increases isolation between the pickup coils or reduces noise as does the device of the present invention, since the north pole flux of the Freeman device also extends to the south pole. (Col. 2:70-71) As such, nowhere does the Freeman reference disclose or suggest a single, uniformly completely flat non-magnetized ferromagnetic plate disposed between the upper coil and the lower coil as recited in claims 22-24 of the present application.

Moreover, there is no suggestion in the Freeman reference for modifying the Kinman device or the Blucher device in the direction of the present invention, nor is there any suggestion whatsoever of the desirability of such modification. Thus, it is respectfully submitted that the ordinarily skilled artisan would have no motivation to combine the references as suggested by the Examiner.

For the reasons stated above, it is submitted that the Kinman, Blucher and Freeman references, either alone or in any combination, neither anticipates nor renders obvious the invention as recited in claim 22. Further, for at least these same reasons, it is submitted that pending claims 23-24, which depend from independent claim 22, are

also allowable over the cited prior art. However, the claims dependent to claim 22 further distinguish over the prior art and thus do not stand or fall with the allowability of claim 22.

CONCLUSION

In view of the foregoing, it is submitted that all pending claims 22-24 are in condition for immediate allowance, and such action is respectfully requested. However, if for any reason direct communication with Applicants' attorney would serve to advance prosecution of this case to finality, the Examiner is cordially urged to call the undersigned attorney at the below listed telephone number.

The Commissioner is authorized to charge any fee which may be required in connection with this Amendment to Deposit Account No.: 50-1329.

Respectfully submitted,

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